APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 13 June 2008.

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Seattle District, WA State Dept of Transportation, NWS-2007-1926.
Name of water being evaluated on this JD form: Sammamish River, Bear Creek, Wetlands W1 through W9

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: Washington County: King City: Redmond
Center coordinates of site (lat/long in degree decimal format): Lat: 47.6671 **N**, Long: -122.1165 **W**
Universal Transverse Mercator: .
Name of nearest waterbody: Sammamish River/Bear Creek.
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Sammamish River.
Name of watershed or Hydrologic Unit Code (HUC): 171100120401.
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different JD form. List other JDs: _____

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date: _____.
☒ Field Determination. Date(s): 15 May 2007.

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☒ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: The Sammamish River is used to transport interstate and foreign commerce.

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☒ TNWs, including territorial seas
      ☒ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: 6,500 linear feet 35 to 60 width (ft) and/or _____ acres.
      Wetlands: 11.73 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.** and **1987 Delineation Manual.**
      Elevation of established OHWM (if known): _____.

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: _____.

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs
If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: Sammamish River.
Summarize rationale supporting determination: The Sammamish River a designated navigable water of the U.S. used for interstate and foreign commerce.

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": Wetland W8 is located at the confluence with Bear Creek and is contiguous with the Sammamish River.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both.

If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 240 **square miles**
Drainage area: 50 **square miles**
Average annual rainfall: 36 inches
Average annual snowfall: _____ inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☒ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **1 (or less)** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **1 (or less)** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: _____.

Identify flow route to TNW[5]: Bear Creek flows into the Sammamish River in the project area.
Tributary stream order, if known: _____.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: _____.
☒ Manipulated (man-altered). Explain: The Corps dredged and straightened the Sammamish River in 1912, 1948, and 1964. The Corps also dredged and straighened Bear Creek.

Tributary properties with respect to top of bank (estimate):

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Average width: 35 feet
Average depth: 3 feet
Average side slopes: **2:1.**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☒ Cobbles	☒ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover: _____	
☐ Other. Explain: _____.		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Very stable, in floodplain with dense riparian vegetation.

Presence of run/riffle/pool complexes. Explain: gradient is too flat to have riffles and pools.

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): ≤1 %

(c) Flow:

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime: perennial.

Other information on duration and volume: Bear Creek is a perennial stream designated as a shoreline of the state, which has over 20 cfs annual flow.

Surface flow is: **Discrete and confined.** Characteristics: _____.

Subsurface flow: **Pick List**. Explain findings: _____.

☐ Dye (or other) test performed: _____.

Tributary has (check all that apply):

☒ Bed and banks

☒ OHWM[6] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☒ changes in the character of soil	☐ destruction of terrestrial vegetation
☒ shelving	☐ the presence of wrack line
☒ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☒ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list): _____	

☐ Discontinuous OHWM.[7] Explain:_____.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: _____.

Identify specific pollutants, if known: dissolved oxygen, fecal coliform, and temperature.

(iv) Biological Characteristics. Channel supports (check all that apply):

☒ Riparian corridor. Characteristics (type, average width): 300 feet, forested and herbaceous.

☒ Wetland fringe. Characteristics: substantial wetlands contiguous with Bear Creek channel.

☒ Habitat for:

☒ Federally Listed species. Explain findings: documented Chinook salmon use.

☒ Fish/spawn areas. Explain findings: Sammamish River and Bear Creek channel in project area are used for migrating fish.

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

[7]Ibid.

☐ Other environmentally-sensitive species. Explain findings: _____.
☒ Aquatic/wildlife diversity. Explain findings: Bear Creek also supports freshwater mussels.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: 11.73 acres
Wetland type. Explain: palustrine forested, scrub-shrub, and emergent; depressional and riverine.
Wetland quality. Explain: Category II and Category III.
Project wetlands cross or serve as state boundaries. Explain: _____.

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: the abutting riparian wetlands (Wetlands W1, W2, W3, W6, and W7) receive flood flows yearly and the adjacent depressional wetlands (Wetlands W4, W5, W9) every five years or so.

Surface flow is**: Overland sheetflow**
Characteristics: the riparian wetlands may have a low flow channel, but the majority of the wetlands receive flood flows as sheetflow because the riparian corridor is wide and not constricted by development to a great extent compared to other urban areas; however Wetland W9 receives flood flows via the culvert under State Route 520. Prior to highway construction, Wetland W9 would have been contiguous with Wetland W5.

Subsurface flow: **Pick List**. Explain findings: _____.
☐ Dye (or other) test performed: _____.

(c) Wetland Adjacency Determination with Non-TNW:
☒ Directly abutting
☒ Not directly abutting
☒ Discrete wetland hydrologic connection. Explain: Wetland W9 receives flood flows via a culvert.
☒ Ecological connection. Explain: wetlands to the north of State Route 520 are contiguous with the wide riparian corridor.
☐ Separated by berm/barrier. Explain: _____.

(d) Proximity (Relationship) to TNW
Project wetlands are **1 (or less)** river miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from TNW.
Flow is from: **Navigable waters to wetland.**
Estimate approximate location of wetland as within the **5 - 10-year** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water is clear in wetlands.
Identify specific pollutants, if known: The Sammamish River and Bear Creek are on 303(d) list for temperature, dissolved oxygen, and fecal coliform .

(iii) Biological Characteristics. Wetland supports (check all that apply):

☒ Riparian buffer. Characteristics (type, average width): 150 feet, forested.
☒ Vegetation type/percent cover. Explain: _____.
☒ Habitat for:
☒ Federally Listed species. Explain findings: the abutting wetlands provide habitat for outmigrating juvenile Chinook salmon during high flow events.
☐ Fish/spawn areas. Explain findings: _____.
☐ Other environmentally-sensitive species. Explain findings: _____.
☒ Aquatic/wildlife diversity. Explain findings: the riparian corridor is used by small to large mammals.

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **9**
Approximately (11.73) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)		Size (in acres)	Directly abuts? (Y/N)		Size (in acres)
W1	Y	2.57	W2	Y	0.31

W3	Y	5.22	W4	N	0.01
W5	N	0.59	W6	Y	0.03
W7	Y	0.04	W8	Y	0.04
W9	N	2.92			

Summarize overall biological, chemical and physical functions being performed: All the wetlands provide water quality improvement, flood flow alteration, production and export of organic matter, and general habitat suitability. Wetlands W1, W2, W3, W6, W7, and W8 provide erosion control and shoreline stabilization. Wetlands W1, W2, W3, W5, W6, W7, and W9 provide aquatic invertebrate habitat and amphibian habitat. Wetlands W1, W2, W6, and W7 provide wetland-associated mammal habitat. Wetlands W3 and W9 provide wetland-associated bird habitat. Wetlands W1, W2, and W3 provide general fish habitat. Only Wetland W3 provides native plant richness functions and uniqueness and heritage values. Wetland W3 and Wetland W9 also provide educational or scientific value.

C. SIGNIFICANT NEXUS DETERMINATION

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: _____.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: _____.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Wetlands W4, W5, and W9 collectively with all the wetlands provide a substantial riparian corridor for an urban area. They receive flood flows from Bear Creek and prevent flooding of adjoining development.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☒ TNWs: 600 linear feet 60 width (ft), or _____ acres.
   - ☒ Wetlands adjacent to TNWs: Wetland W8-0.04 acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide rationale indicating that tributary flows perennial: Bear Creek is a shoreline of the state which be definition has an annual flow of 20 cfs and is documented as perennial.
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: _____.

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   - ☒ Tributary waters: **5900** linear feet **35** width (ft).
   - ☐ Other non-wetland waters: _____ acres.
     Identify type(s) of waters: _____.

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☐ Tributary waters: _____ linear feet _____ width (ft).
   - ☐ Other non-wetland waters: _____ acres.
     Identify type(s) of waters: _____.

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
     - ☒ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Wetlands W1, W2, W3, W6, and W7 directly abut, see JARPA drawings

[8]See Footnote # 3.

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: _____

Provide acreage estimates for jurisdictional wetlands in the review area: **8.17** acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

☒ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: **Wetlands W4, W5, and W9-3.52** acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: _____ acres.

7. Impoundments of jurisdictional waters.[9]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: _____.
☐ Other factors. Explain: _____.

Identify water body and summarize rationale supporting determination: _____

Provide estimates for jurisdictional waters in the review area (check all that apply):

☐ Tributary waters: _____ linear feet _____ width (ft).
☐ Other non-wetland waters: ____ acres.
Identify type(s) of waters: _____.
☐ Wetlands: ____ acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: _____.
☐ Other: (explain, if not covered above): _____.

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

☐ Non-wetland waters (i.e., rivers, streams): _____ linear feet _____ width (ft).
☐ Lakes/ponds: _____ acres.
☐ Other non-wetland waters: _____ acres. List type of aquatic resource: _____.
☐ Wetlands: _____ acres.

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[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): _____ linear feet _____ width (ft).
- ☐ Lakes/ponds: _____ acres.
- ☐ Other non-wetland waters: _____ acres. List type of aquatic resource: _____.
- ☐ Wetlands: _____ acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: WSDOT.
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☒ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: _____.
- ☒ Corps navigable waters' study: The waterbody is on the Section 10 Navigable Waterway List for Seattle District. The list is available at www.nws.usace.army.mil click on Regulatory – Regulatory/Permits – Wetlands and Waters of the US – Navigable Waters.
- ☐ U.S. Geological Survey Hydrologic Atlas: _____.
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name: _____
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: King County Soils Survey (Snyder, D.E. et al.) 1973.
- ☐ National wetlands inventory map(s). Cite name: _____.
- ☐ State/Local wetland inventory map(s): _____
- ☐ FEMA/FIRM maps: _____.
- ☐ 100-year Floodplain Elevation is: _____ (National Geodectic Vertical Datum of 1929)
- ☐ Photographs: ☐ Aerial (Name & Date): _____
  or ☐ Other (Name & Date): _____.
- ☐ Previous determination(s). File no. and date of response letter: _____.
- ☐ Applicable/supporting case law: _____.
- ☐ Applicable/supporting scientific literature: _____.
- ☐ Other information (please specify): _____.

B. ADDITIONAL COMMENTS TO SUPPORT JD: _____.